

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/GB05/001115

International filing date: 17 March 2005 (17.03.2005)

Document type: Certified copy of priority document

Document details: Country/Office: GB
Number: 0406108.1
Filing date: 17 March 2004 (17.03.2004)

Date of receipt at the International Bureau: 18 May 2005 (18.05.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



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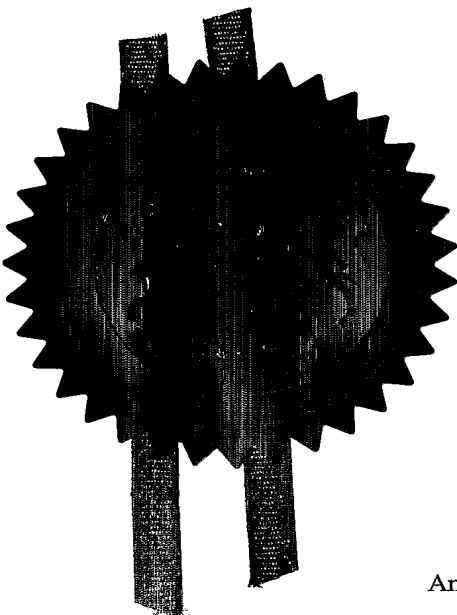
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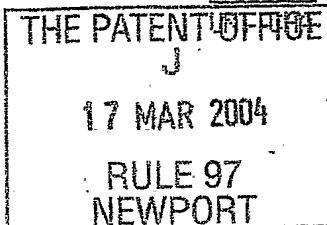
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	Patents ADP number (<i>if you know it</i>)	8831489001		
	If the applicant is a corporate body, give the country/state of its incorporation		8831497001	
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Description 12

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Abstract 1

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Drum Stick Holder

DUPLICATE!

Background

5 a. Field of the Invention

The present invention relates to a holder for drum sticks, drum brushes, mallets and other such percussion implements for playing percussion instruments.

10

b. Related Art

When a drummer is playing a drum or a drum kit, it sometimes happens that the drummer drops a drum stick, or wishes to switch to a different drum stick. The drummer may also wish to use a drum brush or mallet, and all such percussion implements used to play drums, bells, cymbals and other percussion instruments are for convenience simply referred to throughout this document as "drum sticks".

20

A problem therefore arises in how a drummer may quickly and easily get a hold of a replacement drum stick or a different drum stick.

25 It is known to provide a drum stick holder in the form of a cup which may, for example, be attached to the leg of a drum stand. The cup is normally moulded in a rigid plastic material, and may hold 10 or more drum sticks. A problem with this arrangement is that it may be difficult to select the correct drum stick quickly if there is more than one type of drum stick in the cup, or if the drum sticks tend to clump together.

30

A solution to this problem is to provide a number of clips formed in a resilient plastic material which may, for example, be affixed directly to the side of a drum. Each clip has a pair of flexible arcuate arms that project away from the body of the drum and which extend at least 180° around the circumference of a circle. A drum stick may then be snapped into the opening. Although this arrangement maintains the relative orientations and arrangement of a number of drum sticks, it may still be difficult to get hold of a drum stick as the drum stick will normally be extending parallel with a cylindrical body of the drum on which the clips are affixed.

Furthermore, in all these prior art arrangements removing a drum stick from its holder or reintroducing a drum stick to its holder often creates an audible noise. This is particularly inconvenient in a recording studio.

Summary of the Invention

It is an object of the present invention to provide a more convenient holder for a drum stick.

Accordingly, the invention provides a drum stick holder, comprising a plurality of substantially parallel tubular sleeves, each sleeve being joined to at least one adjacent sleeve and having an entrance with dimensions suitable for receiving just one drum stick, wherein each sleeve is formed from an elastomeric material so that each sleeve may hold a drum stick inserted into the sleeve.

The drum stick holder may comprise additionally a mount for mounting the holder to a drum kit, the arrangement being such

that each sleeve is supported by the mount.

In a preferred embodiment of the invention, each of the sleeves has a longitudinal axis, and each of these axes lies
5 in a common plane that extends through each sleeve. Each sleeve may be joined to an adjacent sleeve by means of a web of elastomeric material. Preferably, the or each web of material lies in the plane in which the longitudinal axes of the sleeve lie.

10

The drum stick holder according to the invention provides a rugged and yet compact form of drum stick holder, which can be positioned as required either on legs or on a main body of a percussion instrument, or be provided with its own stand.

15 Because the sleeves may be parallel and lie in a plane, the holder need not take up much room. The mount can also be arranged so that the holder is positioned close to an instrument, but with the drum sticks either spaced or angled with respect to a body of a percussion instrument such that a
20 percussionist may readily get hold of the drum sticks in the holder.

Because each sleeve is formed from an elastomeric material so that each sleeve may either hold or grip a drum stick
25 inserted into the sleeve, it is not always necessary that the sleeve be closed at one end to retain a drum stick. Therefore, at least one of the sleeves may be open at both ends. This can help to simplify manufacture of the holder, as it is easier to mould or to extrude a sleeve which is open at
30 both ends. In one embodiment of the invention, all of the sleeves are open at both ends.

Leaving at least one of the sleeves open at both ends may also facilitate assembly of the holder. For example, the mount may include at least one projection which locates in at least one corresponding sleeve in order to secure the mount
5 to the sleeves.

The holder may, however, comprise one or more plugs that may be removably inserted into one or more corresponding sleeves to close off one end of said sleeve(s). Such a closed sleeve
10 may then be used to help retain small items or narrow diameter drum sticks that would otherwise fall out of the bottom of the open sleeve. A closed sleeve may also be used in conjunction with a looser grip when the grip of the sleeve would otherwise make quick removal difficult.

15 One or more of the sleeves may be tapered internally to aid insertion of a drum stick into the sleeve and to grip better the drum stick once inserted into the sleeve. However, it will generally be preferable if the inner surfaces of the
20 sleeve are non-tapering in order to avoid jamming of a drum stick within the sleeve.

Each sleeve has inner and outer walls which are coaxial with a longitudinal axis and which extend fully around the
25 longitudinal axis of the sleeve.

Optionally, a tear strip may separate at least two adjacent sleeves so that at least one sleeve may be torn from the drum stick holder to reduce the number of sleeves. A user may then
30 be able to customise the capacity of the holder.

The sleeve will have an open end for receiving a drum stick.

When there are at least three sleeves, then these open ends may be arranged such that each of the open ends are in line with all the other open ends.

5 In an alternative embodiment of the invention, the or each sleeve has an open end for receiving an end of a drum stick, and at least one middle sleeve projects forwards of adjacent outermore sleeves relative to an insertion direction for drum sticks. Preferably, the open ends of these sleeves are
10 arranged in a V-pattern. This greatly facilitates the tactile or visual identification of a desired one of the drum sticks, and when fitted in certain positions on a drum kit can facilitate quick removal of the drum stick.

15 Brief Description of the Drawings

The invention will now be further described, by way of example only, and with reference to the accompanying drawings, in which:

20

Figure 1 is a plan view of a first embodiment of a drum stick holder according to a first embodiment of the invention, having five parallel tubular sleeves of equal length, formed in an elastomeric material;

25

Figure 2 is an end view of the drum stick holder, along line II-II of Figure 1;

30

Figure 3 is a plan view of the drum stick holder according to a second embodiment of the invention shown being used to hold five drum sticks, similar to the holder of Figure 1 but comprising additionally a mount

for supporting the holder;

Figure 4 is a side view of the drum stick holder of Figure 3;

5

Figure 5 is a plan view of a drum stick holder according to a third embodiment of the invention, having five parallel tubular sleeves of varying length, formed in an elastomeric material; and

10

Figure 6 is a perspective view of the drum stick holder of Figure 1, being used to hold five drum sticks, and being mounted atop a dedicated stand which engages with a central sleeve.

15

Detailed Description

Figure 1 is a plan view of a first embodiment of a drum stick holder 1 according to the invention. The holder 1 has five parallel tubular sleeves 2 of equal length, formed in an elastomeric material, for example silicone.

Each of the sleeves 2 has a cylindrical body 4 with an annular cross section which extends along an axis 6 between a first annular end face 8 and a second annular end face 10 of the sleeve 2. Each of the longitudinal axes 6 is parallel. Each end face 8,10 extends in a plane which is perpendicular to the axes 6, and which surrounds circular entrances 7, 9 to a cylindrical channel 11 that extends fully along the axis 6 of each sleeve 2.

With reference now also to Figure 2, each sleeve has a length

L, which may be between about 40 mm and about 250 mm, but which in the first preferred embodiment is 90 mm. Each sleeve also has an outer diameter \bar{D} which may be between about 20 mm and about 30 mm, but which in the first preferred embodiment 5 1 is 24 mm. The inner diameter d may be chosen to be between about 5 mm and 15 mm less than the outer diameter \bar{D} , and in the preferred embodiment the inner diameter is 14 mm.

Each of the sleeves 2 is joined to at least one adjacent 10 sleeve 2 by a planar web 12 which is integral with the adjacent sleeves 2. Each of the webs 12 is co-planar with the other webs, and lies in a plane that encompasses the longitudinal axes 6.

15 In the illustrated embodiments, each web 12 is 2 mm wide and 3 mm thick. The resultant centre-to-centre spacing S of the sleeve axes 6 is 26 mm.

The drum stick holder is integrally moulded, preferably being 20 formed by extrusion of an elastomeric material, for example a silicone material, which may be a blend of silicones that provide a desired degree of flexibility and resilience.

In use, the drum stick holder may be secured to a percussion 25 instrument, or a separate stand, in a number of different ways. One way of securing the holder is to use adhesive tape (not shown) which may be applied over one side of the sleeves 2. The webs 12 provide significant flexibility and act as hinges so that the drum stick holder 1 can conform to a 30 surface, particularly a cylindrical surface, of a percussion instrument.

Another way in which the drum stick holder 1 can be secured is by wedging the holder in a suitable gap, for example underneath a strap or between parallel members of a percussion stand or support. Again, the flexibility and resilience provided by the elastomeric material facilitates such a way of securing the drum stick holder 1.

Once the drum stick holder is secured, thin ends of percussion implements, such as sticks and mallets 15, may as shown in Figures 3, 4 and 6, be inserted partially into one of the entrances 7, 9 until securely engaged by the channel 11 inside the sleeve 2. In this regard, it is to be appreciated that the inner diameter d of the sleeves may be selected to be about 1 mm less than the expected lateral dimensions of the drum stick 15 so inserted, so that the channel is expanded slightly upon insertion of the drum stick 15 to provide a snug fit. Alternatively, the inner diameter d of the sleeves may be selected to be about 0 mm to 0.5 mm less than the expected lateral dimensions of the drum stick 15 so inserted, so that the drum stick is merely held and not loose in the holder, rather than being securely gripped. Again, the particular properties of the elastomeric material and the thickness of the body 4 of the sleeve may be selected to give a desired compliance so that a drum stick 15 may be readily inserted and removed, yet remain securely engaged in the channel 11 otherwise.

It should also be appreciated that although each channel 11 is shown as having the same inner diameter d , the sleeves 2 may be formed with differing internal diameters d so that the drum stick holder 1 may accommodate a variety of different sized drum sticks 15.

Figures 3 and 4 show a second embodiment of a drum stick holder 101 according to the invention, in which features similar to those of the first embodiment 1 are indicated by reference numerals incremented by 100. The second embodiment of the drum stick holder 101 differs from the first embodiment 1 only in that the drum stick holder includes a mount 20 for connecting the drum stick holder 1 to a support or stand (not shown). The mount 20 includes a clamp 22 which surrounds a cylindrical aperture 24 for receiving a tubular feature, which may be a support for a percussion instrument (not shown).

The mount 20 is secured to the sleeves 2 by means of at least one finger 26, and preferably two fingers 26 which are inserted into free open ends 109 of at least one sleeve 2. The fingers are sized so that these expand the corresponding sleeves 2, which then grip the fingers 26 to secure the support to the sleeves 2. The mount 20 may, however, be removed from the sleeves 2, or repositioned so that the fingers 26 engage with different sleeves 2, as desired by a user of the holder 101.

Figure 5 is a plan view of a drum stick holder according to a third embodiment of the invention 201 formed in an elastomeric material. Features similar to those of the first embodiment 1 are indicated by reference numerals incremented by 200. The third embodiment of the drum stick holder 201 differs from the first embodiment 1 in two ways. First, the holder 201 has five parallel tubular sleeves 202 of varying length. Second, a number of cylindrical plugs 30 are provided which may be inserted into open ends 209 of the sleeves 202

in order to close off an open end. This may be desirable if the holder is to be used to hold a narrow diameter drum stick which might otherwise fall through the open sleeve. The plugs 30 are preferably formed in the same elastomeric material as the sleeves 2, and sized with a diameter slightly greater than the inner diameter of the sleeves 2, so that the plug 30 are retained once inserted in the open ends 209 of the sleeves 2. The plugs may be between 10 mm and 120 mm long, and in one embodiment of the invention are cylindrical rods about 90 mm long.

The open ends 207 of the sleeves 202 are formed with a V-shape profile, so that a central sleeve 202' is longer than adjacent sleeves. This provides the benefit that drum sticks 15 of approximately equal length will project from the holder 201 with a similar V-shape profile, making it easier to identify and select a particular drum stick 15 from the drum stick holder 201.

Figure 6 is a perspective view of the drum stick holder of Figure 1, being used to hold five drum sticks 15, and being removably mounted atop a dedicated stand 40 which engages with a central sleeve 2'. The drum stick holder 1 may be rotated about an axis 42 of the stand as desired by a user of the holder 1.

When, as in the first embodiment 1, the drum stick holder has sleeves 2 with two open ends 7, 9 to which free access may be had, the drum stick holder may be used to hold two drum sticks 15, one in each open end 7, 9 of drum stick holder 1. Because each drum stick 15 is held resiliently by the elastomeric bodies 4 of the sleeves 2, at least some of the

drum sticks may project horizontally or even vertically downwards yet still be retained securely by the holder 1.

5 The use of elastomeric material in the drum stick holders 1, 101, 201 described above provides a number of significant benefits. The drum stick holders are flexible, so that in the event of knocks, the holder is not damaged. The resilience of the material makes it easier to provide a secure fixing, for example to the drum itself, and there is no need to clamp the
10 holder to a stand. The compliance of the holder makes it difficult to break or damage a stick, or to knock a stand over, if something catches on a stick. The elastomeric material also provides if needed a firm gripping hold on the drum stick so that the stick is not inadvertently knocked out
15 of holder, yet a drum stick can still be pulled out easily when needed.

The use of elastomeric material also makes the holder noiseless in use, which is particularly helpful in recording
20 sessions. Exposed edges of the holder may be chamfered.

Only the tip of the drum stick need be held or gripped by the elastomeric material which is advantageous because more of the drum stick will protrude from the holder, making it
25 easier to get hold of a drum stick, and to find a place on a drum kit on which to mount the holder in such a way that the drum sticks project high enough to enable the drum sticks to be easily reached by a drummer or percussionist.

30 The drum stick holder may also be used to hold other percussion items that a drummer needs to use, such a keys for the drum kit. Suck keys are, of course, shorter than a

typical drum stick, and so shorter sleeves, for example 40 mm long, may be provided for such items as part of the drum stick holder.

- 5 The drum stick holder according to the invention therefore provides a number of significant benefits in use, in addition to being well suited to volume mass production at an affordable price.

Claims:

1. A drum stick holder, comprising a plurality of substantially parallel tubular sleeves, each sleeve being
5 joined to at least one adjacent sleeve and having an entrance with dimensions suitable for receiving just one drum stick, wherein each sleeve is formed from an elastomeric material so that each sleeve may hold a drum stick inserted into the sleeve.
- 10 2. A drum stick holder as claimed in Claim 1, in which each of said sleeves has a longitudinal axis, and each of said axes lies in a common plane that extends through each sleeve.
- 15 3. A drum stick holder as claimed in Claim 1 or Claim 2, in which each sleeve is joined to an adjacent sleeve by means of a web of elastomeric material.
- 20 4. A drum stick holder as claimed in Claim 3, when appendant from Claim 2, in which the or each web of material lies in said plane in which said longitudinal axes lie.
- 25 5. A drum stick holder as claimed in any preceding claim, in which at least one of the sleeves is open at both ends.
6. A drum stick holder as claimed in any preceding claim, in which all of the sleeves are open at both ends.
- 30 7. A drum stick holder as claimed in any of Claims 1 to 5, in which the holder comprises one or more plugs that may be removably inserted into one or more corresponding sleeves to close off one end of said sleeve(s).

8. A drum stick holder as claimed in any preceding claim, in which each of said sleeves is integrally moulded with the other sleeve(s) as an extrusion.

5

9. A drum stick holder as claimed in any preceding claim, in which at least one sleeve is tapered internally to aid insertion of a drum stick into the sleeve and to grip the drum stick once inserted into the sleeve.

10

10. A drum stick holder as claimed in any preceding claim, in which each sleeve extends fully around a longitudinal axis of the sleeve.

15

11. A drum stick holder as claimed in any preceding claim, in which a tear strip separates at least two adjacent sleeves so that at least one sleeve may be torn from the drum stick holder to reduce the number of sleeves.

20

12. A drum stick holder as claimed in any preceding claim, in which each sleeve is a tubular sleeve.

13. A drum stick holder as claimed in any preceding claim, in which each sleeve has an annular cross-section.

25

14. A drum stick holder as claimed in any preceding claim, comprising additionally a mount for mounting the holder to a drum kit, the arrangement being such that each sleeve is supported by the mount.

30

15. A drum stick holder as claimed in Claim 14, in which the mount is affixed to one end of at least one sleeve.

16. A drum stick holder as claimed in Claim 15, in which each sleeve has an open end for receiving a drum stick, the mount being affixed to an opposite end of at least one of
5 said sleeves.

17. A drum stick holder as claimed in any of Claims 14 to 16, in which the mount includes at least one projection which locates in at least one corresponding sleeve in order to
10 secure the mount to the sleeves.

18. A drum stick holder as claimed in any preceding claim, in which each sleeve has the same length.

15 19. A drum stick holder as claimed in any preceding claim, in which each sleeve has an open end for receiving a drum stick, there being at least three sleeves and each of said open ends being in line with all the other open ends.

20 20. A drum stick holder as claimed in any of Claims 1 to 17, in which each sleeve has an open end for receiving a drum stick, at least one middle sleeve projecting forwards of adjacent outermore sleeves relative to an insertion direction for drum sticks.

25

21. A drum stick holder as claimed in Claim 20, in which the open ends of said sleeves are arranged in a V-pattern.

22. An accessory for a percussion instrument comprising a
30 drum stick holder and at least one drum stick, said holder having at least one elastomeric sleeve and the drum stick being inserted partially into said sleeve to expand at least

to some degree the sleeve so that the sleeve thereby holds or grips the drum stick, wherein the drum stick holder is as claimed in any preceding claim.

5 23. A drum stick holder substantially as herein described, with reference to or as shown in the accompanying drawings.

24. An accessory for a percussion instrument comprising a drum stick holder and at least one drum stick, substantially
10 as herein described, with reference to or as shown in the accompanying drawings.

Abstract

Drum Stick Holder

5 The present invention relates to a holder for drum sticks,
drum brushes, mallets and other such percussion implements
for playing percussion instruments. The drum stick holder 1,
comprising a plurality of substantially parallel tubular
sleeves 2, each sleeve being joined to at least one adjacent
10 sleeve and having an entrance 7, 9 with dimensions suitable
for receiving just one drum stick, wherein each sleeve 2 is
formed from an elastomeric material so that each sleeve may
grip a drum stick inserted into the sleeve 2.

15

Figure 1

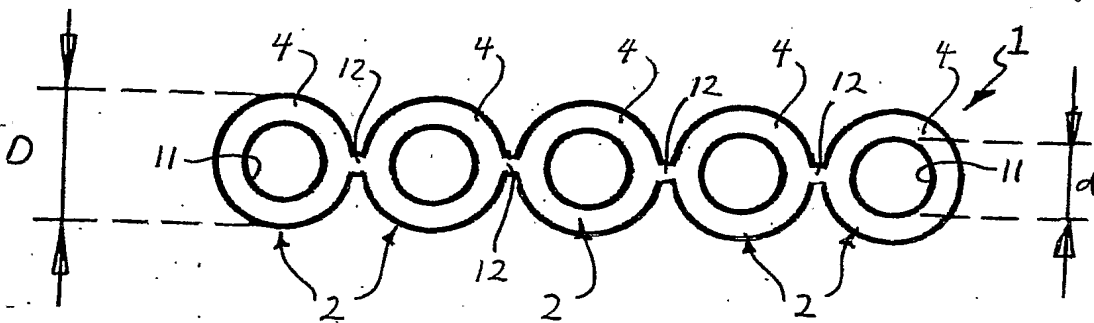
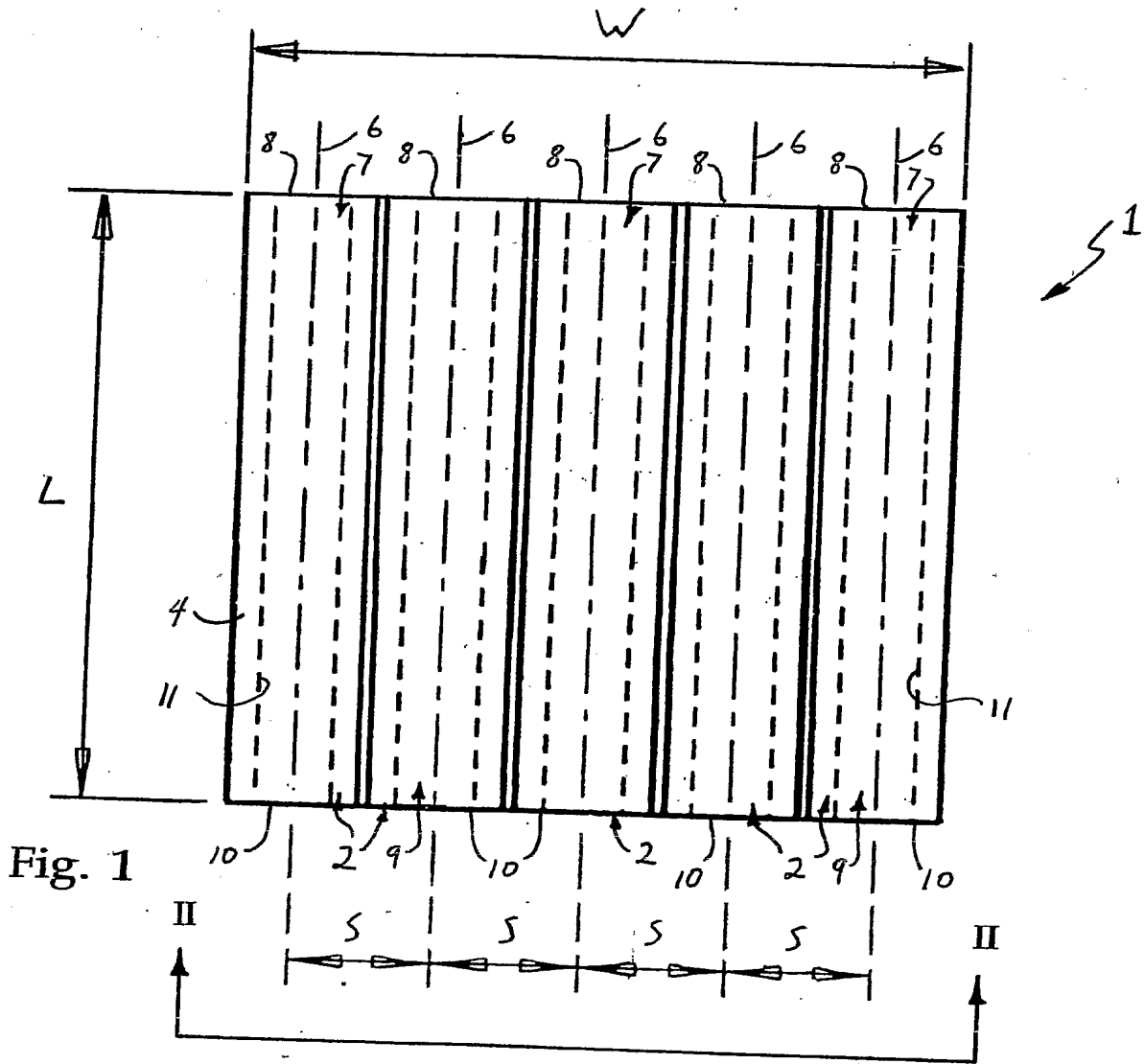


Fig. 2

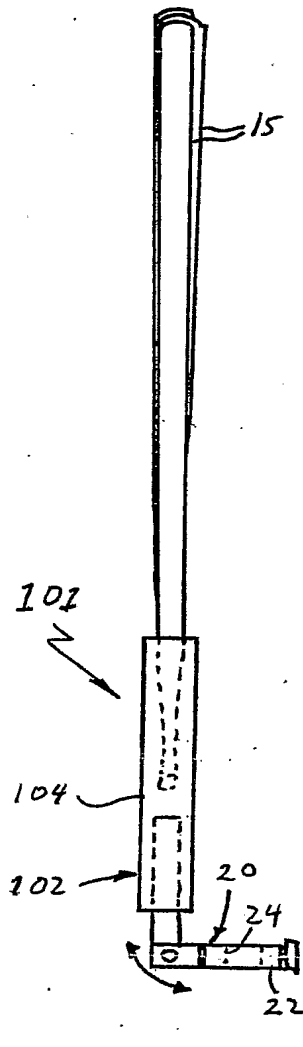


Fig. 4

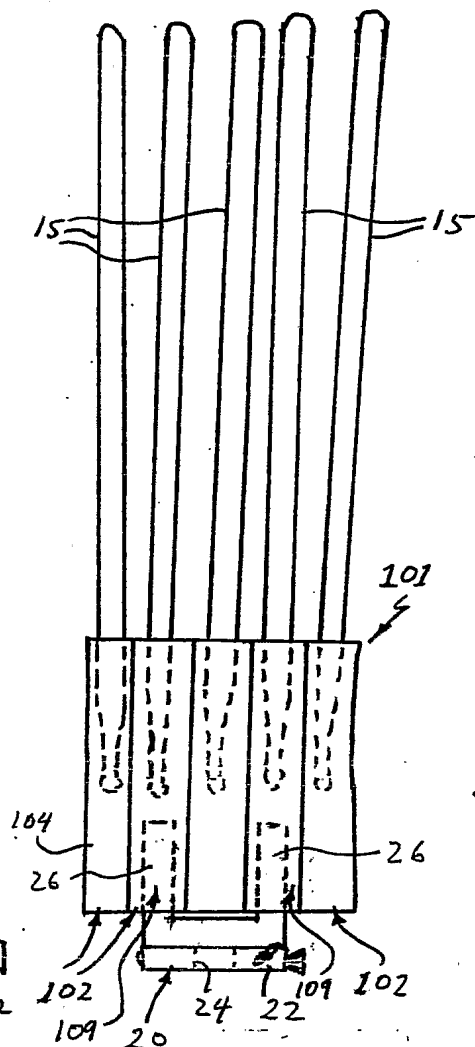


Fig. 3

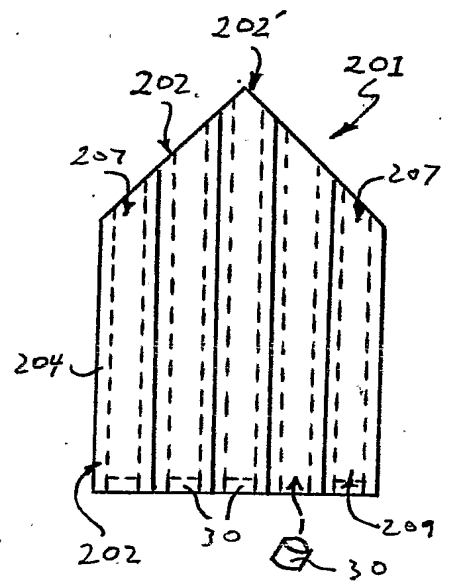


Fig. 5

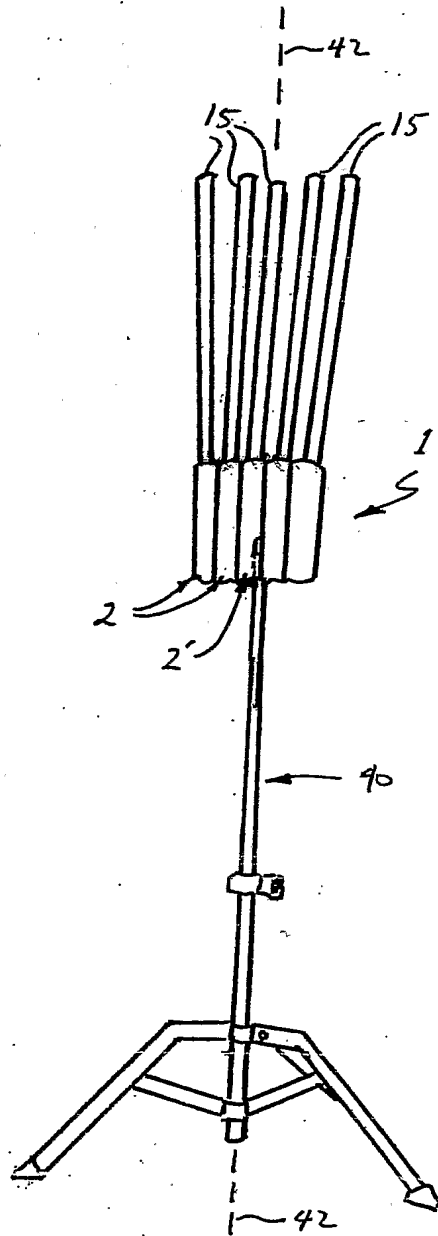


Fig. 6